

Appln No. 10/528,821
Amdt date September 26, 2006
Reply to Office action of June 28, 2006

REMARKS/ARGUMENTS

The above amendments and these remarks are in response to the Office action mailed on June 28, 2006. Claims 1-25 have been amended for clarity. Claims 26-28 have been added and are directed to subject matter disclosed in the application as originally filed. No new matter has been added. Claims 1-28 are now pending in this application. Reconsideration on the basis of the above amendments and remarks below is kindly requested.

The Examiner objected to claims 2-25 based on informalities. Claims 1-25 have been amended to overcome this objection.

Claims 1-3, 8, 11-23, and 25 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Chen (US 5,592,193) in view of Lowell et al. (US 4,782,428). Claim 1 states that the module housing of the illumination device comprises a lamp frame that has "a greater depth than a lamp housing and surrounds the lamp housing on the outside and comprises several arms in which assembly bores are disposed spaced apart to each other". Furthermore, claim 1 states that "for modular expansion" said assembly bores of an arm "align with the assembly bores in an arm of an adjoining lamp frame" such that "connecting elements are insertable through the assembly bores to connect the lamp frames by way of at least one of the group of a positive-locking and a force-locking engagement." In contrast, neither Chen nor Lowell et al. appear to disclose or even suggest neither of these noted limitations.

Chen discloses a video display system including a passive display panel and a backlighting panel. Referring now to Figs. 3-6 of Chen, a planar LCD panel 62 is provided and comprises a plurality of elongated linear horizontally aligned scanning electrode arrays 62a-62e. Using the scanning electrode arrays 62a-62e, regions associated with the electrode arrays of the LCD panel may be switched to a transparent state. In the transparent state, light emitted from the backlighting panel 64 passes the LCD panel 62. The backlighting panel 64 comprises a plurality of elongated, generally linear, horizontally aligned light-emitting zones 64a-64j that are sequentially actuated in synchronization with the electrode arrays 62a-62e of the LCD panel 62.

Chen does not disclose that a lamp frame “comprises several arms in which assembly bores are disposed . . .” Chen does not disclose either that “for modular expansion” said assembly bores of an arm of said several arms “align with assembly bores in an arm of an adjoining lamp frame” such that “connecting elements can be pushed through the assembly bores to connect the lamp frames . . .” Moreover, Chen does not disclose an illumination device that may be modularly expanded. Chen discloses a backlighting arrangement of a video display system that comprises light emitting zones to produce a picture on a display, and does not provide an illumination device for illumination purposes.

In addition, Lowell et al. disclose a collapsible fluorescent tube fixture comprising a frame with a pair of spaced apart tube end supports. Referring now to Figs. 1-4 of Lowell et al., the fixture 10 comprises a fluorescent tube frame 12 that is mounted via a pivot clamp 18 to a tripod 2. The frame 12 serves to carry an arrangement of fluorescent tubes 30 and, after taking out the fluorescent tubes 30, may be collapsed, as is shown in Fig. 4 of Lowell et al. Referring now to Fig. 10, Lowell et al. also disclose that two frames 12 may be mounted to a single tripod using a beam 16'. Lowell et al. do not disclose a lamp frame comprising several arms in which “assembly bores are disposed . . .” Furthermore, Lowell et al. do not disclose that “for modular expansion said assembly bores of an arm of said several arms align with the assembly bores of an arm of an adjoining lamp frame . . .”

Lowell et al. do not provide a lamp frame that may be expanded in a modular fashion. Lowell et al. rather provide a single separate frame for an arrangement of fluorescent tubes that is mounted on a tripod. The tripod may serve to carry two frames. However, a modular expansion of the frame by using assembly bores in different lamp frames and adjoining these assembly bores in order to connect adjoining lamp frames together and provide an expandable frame structure is not the subject of Lowell et al.

Hence, neither Chen nor Lowell et al. appear to disclose, teach or suggest the subject matter of the instant application. In addition, even when viewing Chen and Lowell et al. in combination, the subject matter of claim 1 is not rendered obvious to a person skilled in the art. Chen concerns a video display system. Lowell et al. is drawn to a fixture of fluorescent lights.

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Neither Chen nor Lowell et al. concern an expandable illumination device. Chen rather teaches that a panel may comprise different light emitting zones. For video display purposes an expansion of such panels, however, is not reasonable and is not suggested by Chen, since video displays come in fixed sizes. Lowell et al. teach how to fix a panel on a stand, but not how to expand a panel to obtain a large surfaced illumination device. Consequently, a person skilled in the art who considers Chen and Lowell et al. would not consider providing an expandable illumination device using lamp frames having assembly bores and by aligning the assembly bores connecting the lamp frames together. Thus, Chen in view of Lowell et al., does not render claim 1 obvious. Claims 2-3, 8, 11-23 and 25 are all directly or indirectly dependent from claim 1. As such, these claims are also not rendered obvious over Chen in view of Lowell et al. for the same reasons as claim 1 and for the additional limitations they contain therein.

Claim 6 was rejected under 35 U.S.C. 103(a) as being unpatentable over Chen and Frittz as applied to claim 1, and further in view of Sasuga, Japanese Document JP-05257128-A. It is believed that the Examiner meant to reject claim 6 over Chen in view of Lowell et al. in further view of Sasuga. The Examiner rejected claim 7 under 35 U.S.C. 103(a) as being unpatentable over Chen and Lowell et al. as applied to claim 1 above and further view of Wanuch et al., U.S. Patent No. 6,203,172. The Examiner rejected claims 9 and 10 under 35 U.S.C. 103(a) as being unpatentable over Chen and Lowell et al. as applied to claim 8 above and further in view of Wang, U.S. Patent No. 6,715,903. The Examiner also rejected claim 24 under 35 U.S.C. 103(a) as being unpatentable over Chen and Lowell as applied to claim 1 and further in view of Bolta et al., U.S. Patent No. 6,139,164. Claims 6, 7, 9, 10 and 24 are all directly or indirectly dependent from claim 1. As discussed, Chen and Lowell et al., alone or in combination, do not render claim 1 obvious. As such, claims 6, 7, 9, 10 and 24 are also not rendered obvious over Chen in view of Lowell et al. for the same reasons as provided for claim 1 and for the additional limitations that these claims contain therein.

Furthermore, Sasuga, Wanuch et al., Wang and Bolta et al., do not make up for the deficiencies in Chen and Lowell et al. Sasuga teaches a liquid crystal display device that comprises four rubber spacers that serve to seal a gap between a liquid crystal part and a

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diffusion plate. Sasuga does not appear to teach that “for modular expansion” assembly bores in a lamp frame may “align with assembly bores in an arm of an adjoining lamp frame”, such that “connecting elements can be pushed through the assembly bores to connect the lamp frames”. Moreover, Sasuga does not appear to disclose, teach or suggest illumination devices which are expandable.

Wanuch et al. teach a low-temperature theatrical lighting system comprising a frame carrying a plurality of fluorescent lamps. Referring to Figs. 1-4 and 8a of Wanuch et al., the frame is mounted on a stand. Wanuch et al. do not appear to teach that “for modular expansion” assembly bores in a lamp frame may “align with assembly bores in an arm of an adjoining lamp frame”, such that “connecting elements can be pushed through the assembly bores to connect the lamp frames”. The illumination device according to Wanuch et al. is a separate stand-mounted device that does not appear to be expandable.

Wang teaches a light mounting panel for mounting to a luminaire frame comprising a base that is to be connected to the luminaire frame via flanges. Wang does not appear to teach that “for modular expansion” assembly bores in lamp frames may “align with assembly bores in an arm of an adjoining lamp frame”, such that “connecting elements can be pushed through the assembly bores to connect the lamp frames . . .”

Bolta et al. teach a mobile light stand to support a light panel. Bolta et al. do not appear to teach that “for modular expansion” assembly bores in lamp frames may “align with assembly bores in an arm of an adjoining lamp frame” such that “connecting elements can be pushed through the assembly bores to connect the lamp frames . . .” Bolta et al. concern a stand, but not the construction of a light panel. Thus, for the aforementioned reasons, claims 6, 7, 9, 10 and 24 are also not rendered obvious by Chen, Lowell et al., Sasuga, Wanuch et al., Wang and Bolta et al., alone or in combination.

Claims 26-28 have been added and are directed to subject matter disclosed in the application as originally filed. No new matter has been added. Claims 26-28 also contain subject matter which does not appear to be disclosed, taught or suggested by Chen, Lowell et al.,

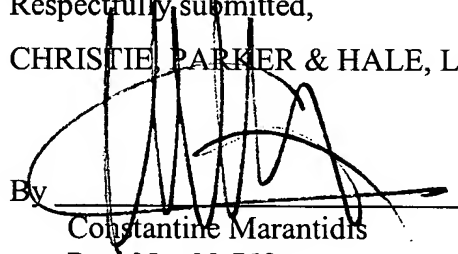
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Sasuga, Wanuch et al., Wang and Bolta et al. either alone or in combination. Consequently, these claims should also be allowable from these references.

The rejections and objections to all claims pending in this application are believed to have been overcome and this application is now believed to be in condition for allowance. Should the Examiner have any remaining questions or concerns about the allowability of this application, the Examiner is kindly requested to call the undersigned attorney to discuss them.

Respectfully submitted,
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